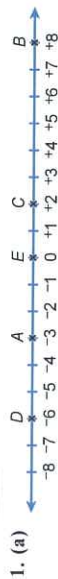
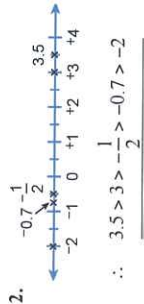


Solution

(b) $-6 < -3 < 0 < 2 < 8$



3. (a) $(+3) + (-2) - (-7) = 3 - 2 + 7$
 $= 1 + 7$
 $= 8$

(b) $(-2.6) + (-3) - (-9.4) + (-1) = -2.6 - 3 + 9.4 - 1$
 $= -5.6 + 9.4 - 1$
 $= 3.8 - 1$
 $= 2.8$

(c) $(-7)(+3)(-9) = +(7 \times 3 \times 9)$
 $= 189$

(d) $(-2.4) \div (+3) \times (+8) \div (-2) = \frac{(-2.4)(+8)}{(+3)(-2)}$
 $= \frac{-(2.4 \times 8)}{-(3 \times 2)}$
 $= 3.2$

4. The final location = $(+15 - 35)$ cm
 $= -20$ cm

\therefore The final location of the ant was 20 cm to the west of A.

5. $+\$12\,000 - \$4\,300 - \$1\,200 + \$25\,000$
 $= +\$31\,500$

\therefore The company gained $\$31\,500$ in that year.

6. (a) Marks obtained by Johnson from the correct answers = 15×10 marks
 $= 150$ marks

(b) Marks lost by Johnson from the wrong answers = 12×5 marks
 $= 60$ marks

(c) Number of questions gave up = $\frac{70 - (150 - 60)}{-2}$
 $= \frac{70 - 90}{-2}$
 $= 10$

7. (a) (i) The final location of the rabbit = $[(+20) \times 3 + 0 \times 1 + (-15) \times 2]$ m
 $= (+60 - 30)$ m
 $= +30$ m

(ii) The final location of the tortoise = $(+6) \times 6$ m
 $= +36$ m

(iii) $\therefore +36 > +30$

\therefore The tortoise was further away from the starting point.

(b) After 6 hours, the distance between the rabbit and the tortoise = $(36 - 30)$ m
 $= 6$ m

